

# Notice of Allowability

Application No.

10/015,500

Examiner

Edna Wong

Applicant(s)

DATTA, AMIT

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment dated January 30, 2004.
2. ☒ The allowed claim(s) is/are 23-29 and 34-36.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 2/17/04.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 2/17/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Edna Wong  
Primary Examiner  
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***Oath/Declaration***

A substitute declaration or oath to correct the deficiencies set forth in the Office Action dated October 27, 2003 has been received by the Examiner.

***Drawings***

The proposed drawings filed on January 30, 2004 are approved by the Examiner.

In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

***EXAMINER'S AMENDMENT***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Leo Zucker on February 17, 2004.

The application has been amended as follows:

**IN THE CLAIMS**

Claims **1-7 and 21** have been cancelled.

### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

Claims **23-29 and 34-36** are allowable over the prior art of record because the prior art does not teach or suggest a method of treating a copper electrical contact member to enhance performance of the member over time with respect to its electrical resistance, comprising the steps of providing, electroplating, forming and coating as presently claimed, esp., the steps of forming the barrier layer to a thickness in the range of from about 0.00001 inch to about 0.0001 inch, and which thickness is sufficient to prevent the electrical contact resistance of the treated contact member from increasing above a given limit over a given period of time at a given temperature; and coating an outer finish layer over the barrier layer, wherein the finish layer is selected from the group consisting of tin, gold, palladium, platinum, silver, and alloys thereof, so that the given limit of electrical contact resistance of the treated contact member is about 10 milliohms at 100 grams contact force, the given period of time is at least 1000 hours, and the given temperature is at least 150 degrees C.

The prior art does not contain any language that teaches or suggests the above.

*Chow et al.* do not teach coating an outer finish layer over the barrier layer, wherein the finish layer is selected from the group consisting of tin, gold, palladium, platinum, silver, and alloys thereof. *Chow et al.* teaches an outer finish layer of nickel.

*JP 56-154261* do not teach coating an outer finish layer over the barrier layer, wherein the finish layer is selected from the group consisting of tin, gold, palladium,

platinum, silver, and alloys thereof. *JP 56-154261* teaches an outer finish layer of chromium.

Therefore, a person skilled in the art would not have been motivated to adopt the above conditions, and a prima facie case of obviousness cannot be established.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edna Wong whose telephone number is (571) 272-1349. The examiner can normally be reached on Mon-Fri 7:30 am to 5:00 pm, alt. Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

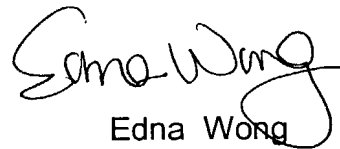
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Edna Wong". The signature is fluid and cursive, with the first name "Edna" and last name "Wong" clearly distinguishable.

Edna Wong  
Primary Examiner  
Art Unit 1753

EW  
February 17, 2004